The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

6312-0004-0 DIV

Ex parte BROUSSARD FABIO,
MAURO ADOVASIO,
CORRADO CALLIEROTTI,
GIANBATTISTA TARONI,
and
JOSE RONCALLI

Appeal No. 1999-0694
Application No. 08/447,807

HEARD: NOVEMBER 6, 2001

Before KIMLIN, PAK, and DELMENDO, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 27, 30, 32 through 36 and 45 through 47. Claims 26, 28, 29, 31 and 38 through 40 stand withdrawn from consideration by the examiner as being drawn to a non-elected invention.

Claims 45, 46, and 47 are representative of the claimed subject matter and read as follows:

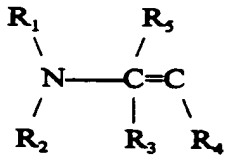
45. A method of accelerating the vulcanization of rubber, comprising:

adding to a rubber, as a vulcanization accelerator, an enamine derived from a secondary amine,

wherein said rubber vulcanizes more quickly with said enamine, than without said enamine.

46. A method of accelerating the vulcanization of rubber, comprising:

adding, to a rubber, as a vulcanization accelerator, an enamine having the formula (I):



(I)

wherein:

R_1 and R_2 are the same or different and represent a linear or branched-chain C_1-C_{18} alkyl radical; a C_2-C_{18}-alkenyl radical; a C_3-C_8 cycloalkyl radical; a C_6-C_{18} aryl radical; a C_7-C_{20} alkylaryl or arylalkyl radical; or R_1 and R_2, taken together with the nitrogen atom represent a C_3-C_8 heterocyclic radical, optionally containing a second heteroatom selected from O, S and N;

R_3 and R_4 are the same or different and represent a hydrogen atom; a linear or branched-chain C_1-C_{18} alkyl radical; a C_2-C_{18}-alkenyl radical; a C_6-C_{18} aryl radical; a C_7-C_{20} alkylaryl or arylalkyl radical; or R_3 and R_4 taken together with the C=C to which they are bonded represent a C_3-C_{12} cycloalkenyl radical;

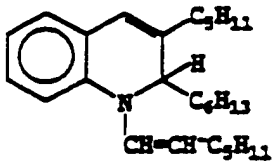
R_5 represents a hydrogen atom; a linear or branched-chain C_1-C_{18} alkyl radical; a C_2-C_{18}-alkenyl radical; or when R_3 represents a hydrogen atom, a linear or branched C_1-C_{18} alkyl radical, a C_2-C_{18} alkenyl radical, a C_6-C_{18} aryl radical or a C_7-C_{20} alkylaryl or arylalkyl radical, or R_4 and R_5, taken together with the carbon atom to which they are bonded, represent a C_3-C_{12} cycloalkylenic radical;

wherein said rubber vulcanizes faster with said enamine than without said enamine.

47. A method of accelerating the vulcanization of rubber, comprising:

adding, to a rubber, as a vulcanization accelerator an enamine of formula (III):

(III)



wherein said rubber vulcanizes faster with said enamine than without said enamine.

In support of his prior art rejection, the examiner relies on the following prior art reference:

Danielson	4,082,706	Apr. 4, 1978[1]

[1] The examiner also refers to U.S. Patent 1,780,334 issued to Burnett et al. on Nov. 4, 1930. The examiner, however, expressly states that he does not rely on it to reject the claims on appeal. Accordingly, we will not consider it in evaluating the examiner's prior art rejection. *In re Hoch*, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970)("Where a reference is relied on to support a rejection, whether or not in a 'minor capacity,' there would appear to be no excuse for not positively

The appealed claims stand rejected as follows:

1) Claims 27, 30, 32 through 36 and 45 through 47 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103 as obvious over the disclosure of Danielson; and

2) Claims 32 through 36, 45 and 46 under 35 U.S.C. § 112, first paragraph, as lacking an enabling disclosure for the invention presently claimed.

We have carefully reviewed the claims, specification, and applied prior art, including all of the arguments advanced by both the examiner and appellants in support of their respective positions. This review leads us to conclude that only the examiner's § 102/103 rejection is well founded. Accordingly, we only affirm the examiner's § 102/103 rejection. Our reasons for this determination follow.

The subject matter on appeal is directed to a process for vulcanizing a rubber in which an enamine is added as a vulcanization accelerator to accelerate the vulcanization.

As evidence of unpatentability under 35 U.S.C. § 102 or § 103, the examiner relies on the disclosure of Danielson. Danielson exemplifies a vulcanization process which comprises

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including the reference in the statement of the rejection").

blending and milling the enamine embraced in claims 45 and 46 with natural and synthetic rubbers and then vulcanizing the resulting mixture. See column 4, line 10 to column 5, line 13, Example 2, especially column 5, lines 6-9, together with column 2, lines 9-29 and 36-39. The presence of the enamine is said to improve certain properties of the resulting product, such as the ozone resistant and discoloration or staining resistant properties. See abstract, together with columns 5 and 6, including Table II. Although Danielson is silent as to appellants' newly discovered additional benefit of accelerating the vulcanization, we do not find such benefit to impart patentability to the claimed process since both the claimed process and Danielson's process employ the claimed enamine during the vulcanization of a rubber. As pointed out by *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990):

> It is a general rule that merely discovering and claiming a new benefit of an *old* process cannot render the process again patentable. *Verdegaal Bros., Inc. v. Union Oil Co. of Calif.*, 814 F.2d 628, 632-33, 2 USPQ2d 1051, 1054 (Fed. Cir.), *cert. denied*, 484 U.S. 827, 108 S.Ct. 95, 98 L.Ed.2d 56 (1987); *Bird Provision Co. v. Owens Country Sausage, Inc.*, 568 F.2d 369, 375, 197 USPQ 134, 139 (5th Cir. 1978). While the processes encompassed by the claims are not entirely *old*, the rule is applicable here to the extent that the claims and the prior art overlap.

Appellants do not dispute that Danielson employs the enamines recited in claims 45 and 46 in its vulcanization process. See Brief and Reply Brief in their entirety. Rather, appellants rely on *In re Marshall*, 578 F.2d 301, 198 USPQ 344 (CCPA 1978) to establish that Danielson's disclosure is not sufficient to establish a *prima facie* case of unpatentability. See Brief, pages 5 and 6.

Appellants' reliance on *Marshall* is misplaced. *Marshall* is limited to a situation where a prior art process accidentally produces the claimed benefit by chance. *Marshall*, 578 F.2d at 304, 198 USPQ at 346. It does not apply to the present situation where the claimed additional benefit necessarily results from following a prior art process.

Appellants separately argue the patentability of the subject matter recited in claim 47. See Brief, pages 6 and 7. According to appellants (Brief, page 7), Danielson provides no suggestion or motivation to employ the specific enamine recited in claim 47. We do not agree.

Danielson describes a number of enamines, which are less than those recited in claims 45 and 46. See column 2, lines 9-28. These enamines, when used in the vulcanization of rubbers, are said to be useful for forming a vulcanized rubber product

having improved properties. See, e.g., abstract and column 2, lines 3-8. The examiner impliedly finds, and we agree, that the limited enamines described in Danielson include those recited in claim 47. See Answer, page 4, and Danielson, column 2, lines 9-28.

Given the advantage of carrying out the vulcanization in the presence of the enamines described in Danielson, we concur with the examiner that Danielson would have suggested or motivated one of ordinary skill in the art to employ all the enamines described therein, including the one recited in claim 47, in its vulcanization process. One of ordinary skill in the art would have had a reasonable expectation that a vulcanized rubber product having improved properties would have been successfully produced in the presence of the enamine recited in claim 47.

Having determined that the examiner has established by preponderance of evidence that Danielson would have rendered the claimed subject matter anticipated or obvious, we affirm the examiner's decision rejecting all of the appealed claims under 35 U.S.C. § 102 or § 103.

As evidence of unpatentability of the claimed subject matter under 35 U.S.C. § 112, first paragraph, the examiner asserts that the specification does not enable one of ordinary skill in the art to make and use the claimed subject matter. See Answer, page 4. For the reasons well articulated by appellants in their Brief and the Reply Brief, we determine that the examiner has not established by preponderance of evidence that one of ordinary skill in the art, who has knowledge of the state of the art as well as the application disclosure, would not be able to practice the claimed subject matter. Accordingly, we reverse the examiner's decision rejecting claims 32 through 36, 45 and 46 under 35 U.S.C. § 112, first paragraph.

In view of the foregoing, the decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

EDWARD C. KIMLIN)
Administrative Patent Judge)
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CHUNG K. PAK) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES
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ROMULO H. DELMENDO)
Administrative Patent Judge)

CKP:hh

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